Amendments To The Claims:

1. (Amended) A unit cell for use in a stent adapted to be expanded to conform to the dimensions of a vessel, comprising;

(i) an elongate connecting bar extending in a direction normal to the direction of stent expansion,

(ii) associated with each end of said connecting bar, a first arm and a second arm, each arm being attached to the connecting bar associated end at an inner arm end for pivotal movement away from one another with stent expansion, said first and second arms having outer arm ends which are moved outwardly, with respect to the connecting bar, with such pivotal movement, and

(iii) an expandable looped member connecting the outer arm ends in each pair of first and second arms, said looped member having an axial component length as measured in an axial direction from an axial outward extremity to an axial inward extremity, wherein the axial component length reduces [extremity which moves axially inwardly, with respect to the associated connecting bar end,] with stent expansion,

said arms and expandable looped members being constructed and dimensioned so that the [radial] axial outward distance traveled by the arms' outer ends in each pair of first and second arms is approximately equal to the reduction in length of the axial component length of [axial inward distance traveled by] the associated looped member [extremity,] as the stent is expanded.

2. The unit cell of claim 1, wherein said first and second arms in each pair are connected to said looped members through a shoulder member.

3. The unit cell of claim 2, wherein said shoulder member is a U-shaped, N-shaped or W-shaped shoulder member.

4. The unit cell of claim 1, wherein said looped members have an undulating configuration.

5. (Amended) A stent adapted to be expanded to conform to the dimensions of a vessel, comprising a plurality of unit cells, each unit cell composed of

(i) an elongate connecting bar extending in a direction normal to the direction of stent expansion,

(ii) associated with each end of said connecting bar, a first arm and a second arm, each arm being attached to the associated connecting bar end at an inner arm, for pivotal movement

away from one another with stent expansion, said first and second arms having outer arm ends which are moved outwardly, with respect to the connecting bar, with such pivotal movement, and

(iii) an expandable looped member connecting the outer arm ends in each pair of first and second arms, said looped member having an axial component length as measured in an axial direction from an axial outward extremity to an axial inward extremity, wherein the axial component length reduces [extremity which moves axially inwardly, with respect to the associated connecting bar end,] with stent expansion,

said arms and expandable looped members being constructed and dimensioned so that the axial outward distance traveled by the arms' outer ends in each pair of first and second arms is approximately equal to the reduction in length of the axial component length of [axial inward distance traveled by] the associated looped member [extremity,] as the stent is expanded.

6. The stent of claim 5, wherein said first and second arms in each pair are connected to said looped members through a shoulder member.

7. The stent of claim 6, wherein said shoulder member is a U-shaped, N-shaped or W-shaped shoulder member.

8. The stent of claim 5, wherein said axial extremity in each of said looped members has an undulating configuration.

9. The stent of claim 5, wherein said plurality of unit cells is connected to one or more axially adjacent plurality of unit cells by at least one connecting segment extending between two axially adjacent axial extremities.

10. The stent of claim 9, wherein each plurality of unit cells includes between 3-500 unit cells.

11. The stent of claim 9, wherein the stent has an expansion ratio, taken as the diameter of the stent after expansion to the diameter before expansion, of between 1-10.

12. The stent of claim 11, wherein the expansion ratio is varied by varying the axial length, taken as the distance between axial extremities in a unit cell, of the unit cells in each plurality of unit cells.

13. The stent of claim 11, wherein the expansion ratio is varied by varying the number of unit cells in each plurality.

14. The stent of claim 9, wherein said connecting segment is a U-shaped looped segment.

15. The stent of claim 5, which further includes an outer stent surface on which a polymer stent is carried, said stent and polymer stent designed for coexpansion in response to an applied force.

16. A stent having a plurality of openings therethrough, the stent comprising a plurality of serpentine circumferential bands, adjacent serpentine circumferential bands connected one to the other, the serpentine circumferential bands including first serpentine circumferential bands of a first shape and second serpentine circumferential bands of a second shape different from the first shape, every first serpentine circumferential band being adjacent to a second serpentine circumferential band and every second serpentine circumferential band being adjacent to a first serpentine circumferential band, distal most openings of the stent being at least partially bounded by a first serpentine circumferential band and at least partially bounded by a second serpentine circumferential band, proximal most openings of the stent being at least partially bounded by a first serpentine circumferential band and at least partially bounded by a second serpentine circumferential band, at least one opening being bound by serpentine circumferential bands other than a second serpentine circumferential band.

17. The stent of claim 16 wherein adjacent first and second serpentine circumferential bands are connected one to the other via a plurality of longitudinally extending connectors.

18. The stent of claim 17 wherein the first serpentine circumferential band has a width which differs from the width of the second serpentine circumferential band.

19. The stent of claim 16 wherein the first serpentine circumferential band has a width which differs from the width of the second serpentine circumferential band.

20. The stent of claim 17 wherein the serpentine circumferential bands comprise alternating peaks and troughs, the adjacent first and second serpentine circumferential bands being connected only via the longitudinal connectors, the longitudinal connectors extending between peaks of the first and second serpentine circumferential bands and adjacent first and second serpentine circumferential bands which are connected only via longitudinal connectors which extend between troughs of the first and second serpentine circumferential bands.

21. A stent having a plurality of openings therethrough, the stent comprising a plurality of serpentine circumferential bands, adjacent serpentine circumferential bands connected one to the other, the serpentine circumferential bands including first serpentine circumferential bands of a

first shape and second serpentine circumferential bands of a second shape different from the first shape, every first serpentine circumferential band being adjacent to a second serpentine circumferential band and every second serpentine circumferential band being adjacent to a first serpentine circumferential band, at least one first serpentine circumferential band adjacent to and connected to another first serpentine circumferential band, distal most openings of the stent being at least partially bounded by a first serpentine circumferential band and at least partially bounded by a second serpentine circumferential band, proximal most openings of the stent being at least partially bounded by a first serpentine circumferential band and at least partially bounded by a second serpentine circumferential band, wherein adjacent first and second serpentine circumferential bands are connected one to the other via a plurality of longitudinally extending connectors, wherein the first serpentine circumferential band has a width which differs from the width of the second serpentine circumferential band,

wherein the serpentine circumferential bands comprise alternating peaks and troughs, the adjacent first and second serpentine circumferential bands being connected only via the longitudinal connectors, the longitudinal connectors extending between peaks of the first and second serpentine circumferential bands and adjacent first and second serpentine circumferential bands which are connected only via longitudinal connectors which extend between troughs of the first and second serpentine circumferential bands.

22. The stent of claim 16 wherein adjacent serpentine circumferential bands are connected one to the other via one or more longitudinally extending connectors.

23. A stent having a plurality of openings therethrough, the stent comprising a plurality of serpentine circumferential bands, adjacent serpentine circumferential bands connected one to the other, the serpentine circumferential bands including first serpentine circumferential bands of a first shape and second serpentine circumferential bands of a second shape different from the first shape, every first serpentine circumferential band being adjacent to a second serpentine circumferential band and every second serpentine circumferential band being adjacent to a first serpentine circumferential band, at least one first serpentine circumferential band adjacent to and connected to another first serpentine circumferential band, distal most openings of the stent being at least partially bounded by a first serpentine circumferential band and at least partially bounded by a second serpentine circumferential band, proximal most openings of the stent being at least

partially bounded by a first serpentine circumferential band and at least partially bounded by a second serpentine circumferential band, wherein adjacent serpentine circumferential bands are connected one to the other via one or more longitudinally extending connectors,

the longitudinally extending connectors comprising first longitudinal connectors of a first length and second longitudinal connectors of a second length less than the first length.

24. The stent of claim 23 wherein the serpentine circumferential bands comprise alternating peaks and troughs, the first longitudinal connectors extending between peaks of some adjacent serpentine circumferential bands and between troughs of other adjacent serpentine circumferential bands, the second longitudinal connectors extending between peaks and troughs.

25. A stent comprising a plurality of sections, each section comprising a plurality of loop members, the loop members arranged to form first bands extending about the circumference of the stent, each first band comprising alternating peaks and troughs, each peak separated from a trough adjacent thereto by a bent portion of a loop member, first bands which are adjacent one another within a section separated one from the other by a second band, each second band connected to each first band adjacent thereto, a distal most first band of one section adjacent to and connected to a proximal most first band of another section by a longitudinally extending connecting segment, the longitudinally extending connecting segment connected at a first end to a distal portion of the distal most first band and connected at a second end to a proximal portion of the proximal most first band, wherein a first band of a section is located at an end of the stent.

26. The stent of claim 25 wherein first and second bands which are adjacent one another are connected one to the other via longitudinally extending connectors.

27. The stent of claim 26 wherein each second band is in the form of two adjacent, out of phase, interconnected serpentine structures.

28. A stent comprising a plurality of circumferential serpentine bands including first circumferential serpentine bands and second circumferential serpentine bands, the first circumferential serpentine bands having a width in excess of the width of the second circumferential serpentine bands, circumferential serpentine bands which are adjacent one another connected one to the other, at least one second serpentine circumferential band immediately adjacent to and connected to another second serpentine circumferential band by a longitudinal connector.

29. The stent of claim 28 wherein adjacent circumferential serpentine bands are connected one to the other via one or more longitudinal connectors.

30. The stent of claim 28 wherein each first circumferential serpentine band is adjacent a second circumferential serpentine band and each second circumferential serpentine band is adjacent a first circumferential serpentine band.

31. The stent of claim 28 wherein the first circumferential serpentine bands have an amplitude in excess of the amplitude of the second serpentine bands.

32. The stent of claim 29 wherein the first circumferential serpentine bands have an amplitude in excess of the amplitude of the second serpentine bands.

33. The stent of claim 32 wherein each first circumferential serpentine band is adjacent a second circumferential serpentine band and each second circumferential serpentine band is adjacent a first circumferential serpentine band.

34. A cell for use in a stent, the cell comprising a first bent end characterized by a first width and a second bent end characterized by a second width different from the first width, the first end connected to the second end, the first bent end having a peak oriented in a first direction, the second bent end having a single peak, the single peak oriented in the first direction and pointing away from the cell.

35. The cell of claim 34 wherein the first and second ends are connected to one another via longitudinal connectors.

36. A stent comprising a plurality of the cells of claim 35 the cells arranged in bands extending about the circumference of the stent, the bands arranged along the length of the stent.

37. The stent of claim 36 wherein the first ends of circumferentially adjacent cells form a first circumferential band with a first amplitude and the second ends of circumferentially adjacent cells form a second circumferential band with a second amplitude less than the first amplitude.